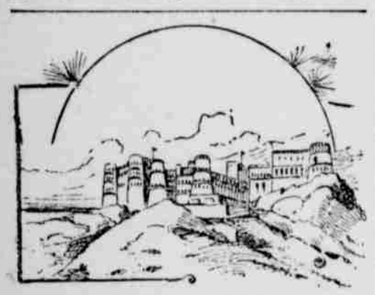
THE SPARKLING GEMS.

HOW DIAMOND MINES ARE WORKED.

The World's Supply of the Precious Stones and Where They Are Found—Scenes in the Diamond Mines of India, Brazil and South Africa—How the Mining Is Carried On—Precautions Against Theft.

Diamonds.

The value of the diamond as an ornament has been appreciated from the earliest ages, and in the East the mining of these precious stones has, from time immemorial, been a prerogative of royalty. The oldest diamond mines in the world are those of India, and evidence of the singular productiveness of the Indian mines is found in the fact that though work has been carried on in them since before written history had an origin, many of them are still, if not as productive as ever, sufficiently so to justify the continuance of work. The Indian mines are not only the oldest, but are also the most extensive in the world, the diamond district of the peninsula extending from near the River Penar in the South to the River Sone in the North, a tract in the Far Deccan over 700 miles from north to south and from thirty to 200 miles in width. Not everywhere throughout this vast extent of country are diamonds found, but here and there the diggings are extensive, while almost anywhere, a "prospect" of the soil gives indications of good diamond territory. In this wide extent there are many important mines. Some of the best have long been exhausted, and at present the most extensive diggings are at Kudapah, Karnul and Ellore, where many hundred thousand dollars' worth of diamonds are annually taken from the soil. Some of the most productive territory is in the dominions of the Nizam of Hyderabad, and here were the long famous mines of Golconda This was the name given them, but in reality Golconda is not a name of a mine or even of a district, but of a fortress round which a town has grown up. In former days the castle was held by a strong garrison, and the gems from all the surrounding country were gathered into the fortress as a place of security; hence Golconda became a market for the mines of Central India, and the Golconda gem might come from any one of a hundred mines in the vicinity. Formerly all mining was



THE GOLCONDA FORTRESS.

under the supervision of the Indian potentates, but in all the diamond districts of India the diamond digging is now carried on in a desultory fashion by the natives. The Indian diamonds are found only in comparatively recent alluvial deposits, there being generally an upper surface composed of loam and sand, perhaps two feet in thickness, under which lies a stratum of black clay from two to four feet thick, and under this again the diamond soil, a stiff clay intermingled with large round stones. Here is the diamond hunter's harvest. The deposit is from two to three feet in thickness, and after being reached by the removal of the overlying strata, is removed and treated in one or two ways. When water is abundant and easily available, the mud is washed through a sieve, and the stones remaining in the sieve are examined to ascertain what gems may be among their number. When the mine is in a dry locality, the mud is removed, dried in the sun, then broken into powder and subjected to a close scrutiny. The utmost degree of care must be exercised in examining the soil from the diamond layer, in order that no gems may be overlooked, for a diamond the size of a pin head is the reward of many days' labor, and its loss is not to be replaced.

As at present conducted in the Deccan, diamond mining scarcely pays expenses, even when the laborer considers 15 cents a day an ample return for his exertions. The surface soil is removed from a small area and an examination made of the diamond stratum When the indications appear promising, the mining is continued, but should the laborer judge that his efforts are being thrown away, he at once abandons that locality and selects some other point. The consequence is, that although an immense amount of work is done every year in the diamond regions, so unsystematically is it carried on, that the results are very poor. Occasionally a gem of good size is found, and competent authorities say that if the mines were conducted in a scientific or systematic manner, considerable results might be attained. But perhaps this is saying too much, for no business is more uncertain than diamond mining. The finest gems in the world are of Indian origin;

HILL FORTS IN THE INDIAN DIAMOND DISTRICT.

the Kohinoor, the Kohitor, the Regent, which once glittered in the handle of Napoleon's sword and was captured at Waterloo, the Orloff, for which the Empress Catherine gave $45,000 in cash, an annuity of $20,000 and a title of nobility, together with a large number of noted gems were from the Deccan diamond district of India.

Diamonds have long been mined at Montiana in Borneo, a locality where as search for the precious stones is still in progress; and from time to time the labors of the diggers are rewarded by the discovery of valuable gems. The formation in which they are found is, however, quite different from that of India. The diamond earth of Borneo is of red clay, in which are found not only diamonds but also gold and platinum. These three valuable products make the Borneo mines well worth developing, as one or the other is almost certain to afford enough to pay expenses and a handsome profit The application of improved machinery to the Borneo mines might produce good results, for many

A SORTING TABLE IN THE BRAZILIAN DIAMOND DIGGINGS.

valuable gems have been already discovered, and it is said that hardly more than half of the diamond district has been worked. The most famous stone from the Borneo mines is the great gem in the possession of the Sultan of Matan. It weighs 367 carats, and is valued at $3,500,000.

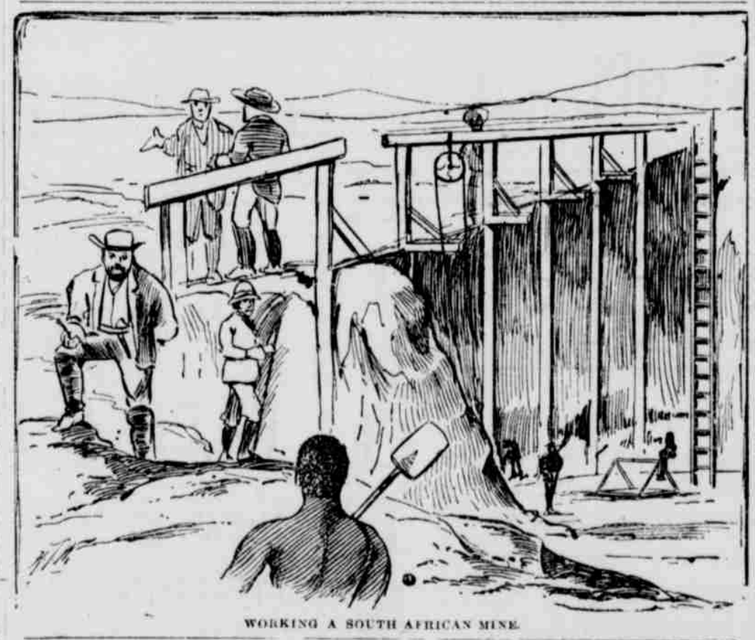
When the Spaniards conquered Peru and other parts of South America they found many valuable stones in possession of the natives, but destroyed great numbers of gems by placing them on an anvil and striking them with a hammer, under the mistaken impression that the genuine diamond could not thus be injured. It is now known that the diamond is one of the most brittle of stones, and even a well-cut stone will sometimes be split in two by an accidental fall on a stone, or even a wooden floor. It is certain, therefore, that many gems of great value were heedlessly destroyed by the ignorant Spanish soldiers. Whence came the jewels of the Incas and the Montezumas no one knew until the middle of the last century, when diamond mines were for the first time discovered by Europeans in the Brazilian province.

The discovery was the merest accident. In the province of Minas Geraes the negro slaves had for a considerable time used as counters in card-playing certain bright stones which they found in the streams and along the shores. Along came a traveler who had spent some years in India, and, recognizing the stones, he purchased a large number for a few cents each and took himself out of the country with all imaginable

WASHING FOR DIAMONDS.

haste. For many months nothing was heard of him, but a year or two later a large party of well-armed men began to make mysterious researches in the province where the negroes had found the stones They were diamond-hunters, and before the government became cognizant of their exertions large numbers of valuable gems had been found and taken out of the country. When the fact became known a stop was put to the work, the foreigners were expelled, and the government took charge of the mines.

For a long time the Brazilian stones were regarded as inferior to those of India and Borneo, but save the tinge of color, generally yellow, which is often found in the Brazilian stones, there is no reason for the supposed inferiority, and when they are white they can not be distinguished from the product of the Deccan mines In Brazil the diamond occurs among the detritus of a sandstone formation and often occurs in connection with gold and other precious stones. On the banks of the Brazilian rivers, especially where ledges of rock come down into the water, a very curious circumstance is observable. The little whirlpools which are found in the eddies of every stream have turned the small stones round in one spot, so as to form what are known as "pot holes." These holes are cut in the beginning by diamonds lodging in some crevice or accidental concavity in the rock, but the floods bring other stones, and thus assist in cutting out the holes, until these curious cavities are sometimes five or six feet in depth and not more than two to three in diameter. In summer, or dry season, the natives take out the water, lift out the large rocks and search among the smaller stones and pebbles at the bottom for diamonds, which are frequently found there, carefully filling up the hole again with sand pebbles and bowlders, under the idea that diamonds will again grow at the bottom. After the foreign adventurers were expelled the diamond mines were declared to be the property of the Brazilian Government, but the right to work in them was rented or leased from the Government by a royalty sum of $10 per annum on each slave employed in the diggings. The Government, however, realized no profit, and the annual bounty per man was increased to $25, and still no money was made from the mines. In despair at this result, the Government of Brazil took charge of the mines and worked them, but finding them a source of great expense and little income, the laws were a few years ago so changed that the mines are now the property of private individuals. The most remarkable thing about the Brazilian mines is the singular uniformity of product—that is to say, that every 100 cubic yards of earth removed from the mines will yield about the same number and weight of diamonds. They are mostly small, but



WORKING A SOUTH AFRICAN MINE.

there have been some notable exceptions. The famous diamond in the treasury of the King of Portugal came from Brazil. According to the rules of measurement and price it should, if pure, be worth $28,000,000, for its weight is said to be no less than 1,680 grains. The diamond "Star of the South," weighing a little over 254 carats, is perhaps the finest gem, save that of Portugal, which ever came from the Brazilian mines. But Brazil does not depend upon her diamond mines as a source of wealth. During the first hundred years of diamond mining in Brazil, or from 1756 to 1856, the output of the mines was about $20,000,000, and in the year last named the export of coffee alone was over $28,000,000. From the port of

AN INDIAN DIAMOND PRINCE.

Bahia there are very year exported $1,000,000 worth of diamonds and over $4,000,000 worth of sugar, thus proving that what grows on the earth is of more importance than what is found underneath its surface

The Ural Mountains have, on the Russian side, valuable mines of diamonds, gold and platinum, several valuable gems and many small stones having been found there in a formation closely resembling that of Brazil. The Russian mines, however, like most others, have never been worked systematically, and the general corruption prevalent in every department of the Russian Government encourages the belief that large numbers of the stones are stolen by the employes.

In 1868 the adventurers of the world were excited by reports of the discovery of diamonds in South Africa. As elsewhere, the discovery was by the merest accident. A little boy playing on the banks of the Orange River found a bright stone, which he used as a plaything. Its value was not suspected, and it lay about the house, until one day a hunter passed through, and recognizing the gem purchased it for a small sum, despite the boy's remonstrances had an examination made of it, and it proved, when cut, to be a diamond of 21 carats and excellent brilliancy. Search was made, with the usual result, and so extensive were the diamond fields found to be that at present upwards of 6,000 persons are engaged in the mines along the Orange and Vaal Rivers A remarkable feature of South African mines is the large size of the stones produced; over 100 have been found exceeding thirty carats in weight, and many over twenty. Nearly all, however, are yellow, and the effect of the South African discoveries was to reduce the price of yellow stones to about one-fourth their former figure. The diamond diggings of South Africa cover an area of about 20,000 square miles, the whole of which was at once claimed by Great Britain and annexed as soon as its value was discovered. In one important respect the South African diggings are different from those of other regions, for in Africa the diamonds are found from the surface to a depth of upward of one hundred feet. As a rule the diamond strata lie close to the surface, but in the South African mines the contrary is the case, and better gems are found from eighty to one hundred feet below the surface than are found in the early stages of the work.

The method of working the mines is exceedingly primitive. A claim is staked; all the earth is removed one bucketful at a time, and carefully sifted for the diamonds it may contain. The labor is done by blacks, who before going to work are deprived of all their clothing, and after leaving the mine are carefully searched lest they should steal the product of the day's labor. Extreme care is necessary, for the diamond comprises so much value in so little bulk, that it is quite possible for a dishonest employe, unless carefully watched, to carry away many thousand dollars' worth of gems. Every mine-owner, however, is provided with emetics, and the negro suspected of swallowing gems is promptly doctored. In spite of the utmost precautions, however, employers are subjected to great loss on account of thefts by the laborers, and in every mining camp there were dishonest dealers who would buy the stones from the blacks at a small part of their value, and then smuggle them out of the neighborhood. Finding that watching the negroes was of no avail, the mine owners went to the root of the evil, hung two or three dealers caught in the act of purchasing stolen stones, ordered others out of the camp, and thus, for a time at least, stopped the evil.

Too Eager.

The Companion recently printed a story about a woman who had no doubt that she could paint pictures if a certain famous artist would only "tell her how he did it." The Boston Courier has a similar anecdote, and the two, if we are to believe them, seem to indicate that the old saying, "Art is long," is no longer universally belied, even for "substance of doctrine."

A well-known vocal teacher of Boston, whose reputation brings him pupils from all over the country, relates that there once came to him a lady who announced herself as a music teacher from a Western city, and declared her intention of taking a course of lessons. She asked his terms, and pronounced them satisfactory, and then went on to talk about the time of lessons.

"You see," she explained, "I have only a limited time in Boston, and I must manage so as to get the whole twenty lessons into that."

"How long are you to be here?" the other asked.

"Three weeks," she replied.

"Twenty lessons in three weeks!" he exclaimed aghast. "How could that be done?"

"Oh," she responded easily, "I could take two lessons some days."

"Yes," the teacher answered, "or you might take the whole twenty lessons one after the other all at once. That would only take about ten hours."

The face of the lady brightened.

"Would you really be willing to give them to me that way?" she asked. "Then I could get home inside of ten days, and get my advertisement as your pupil printed before the end of vacation." And the amusing part of the story is that the woman could not be made to see the absurdity of her suggestion.

The Tricks of Trade.

Ikey Isaacstein—O, fader, dese collars und cuffs in der vinder vas all fly-shpeckled.

Isaacstein—Neffer mind, sonny. Shust mark dem up to t'irty cents und advertise dem as de ladest t'ing in polka dots, ain'd it?—Boston News.

Outrageous Wastefulness.

Uncle Silas (reading)—Stifferny & Co. have made a solid silver epergne for a New York lady. It is valued at $1,496.

Aunt Betsy—That's downright extravagance. I never had an apr'n in my life that cost over 35 cents.—Jewelers' Weekly.

The Girl Graduates' Cipher.

He—Why do the girls at Madame de la Mode's school write young Foster notes in French—to air their learning?

She—No; it's against the rules to have beaux, and they don't want madame to understand what they write.—Judge.

THOSE early saints were fond of fasting, but the modern fast men are far from being saints.—*Binghamton Republican.*

FRANK JAMES' HOME.

The Historic House to Which the Pinkertons Once Laid Siege.

The home of Frank James, the notorious outlaw, which foolish gossip recently had it was to be purchased by Chicago parties and transferred to the World's Fair grounds, is located in Missouri, near the little town of Nevada. This is the house which was surrounded by Pinkerton men on one occasion when they threw bombs down the chimney to raise the siege and force the outlaws into their clutches. One of these bombs shattered the arm of Mrs. Samuels, stepmother of the men. The house is still occupied by Mrs. Samuels and is an object of interest to the curious and to the relic hunters who visit the

FRANK JAMES' HOUSE

neighborhood. There is no probability that it will be taken to Chicago—at least not by the World's Fair directors as an adjunct to the exposition.

Humors of Chinatown.

"Chinatown as a spectacle is disappointing," says Mr. Rus in his "Studies Among the Tenements of New York." But he found some things therein to tickle his sense of humor, and other things at which he laughed that he might not weep. One evening, while going through Mott street—the Chinese quarter—he heard a woman shrieking in a cellar. Descending with his companion, a policeman, he discovered a Chinaman beating his white "wife" with a broom-handle.

"She velly bad!" shouted the Chinaman, as the two Americans, prejudiced against wife-beating, caught hold of his arms and released the woman.

"S'pose your wifee bad, you no lickee her?" he asked, turning fiercely upon Mr. Rus.

"No, I wouldn't; I'd never think of striking a woman," answered the American.

The amazed Chinaman eyed him in silence for a moment, and then contemptuously answered:

"Then, I guess, she lickee you."

Going into a joss-house, he discovered among the Chinese scrawls on the walls the inscription, in English letters: "In God We Trust." It had been copied from the trade dollar, and the priest explained that the inscription was a delicate compliment to "Melican Joss," the almighty dollar.

On his own shores John Chinaman may be a thousand years behind the age, but here he has been so influenced by the "Melican Joss" that he is abreast of the age in his scheming to "make it pay." He turns everything, from "Joss" down, into cash, or that which cash buys.

Fading.

In a small town of Northern Vermont the inhabitants are noted for their early marriages. An unmarried young woman who has passed her twenty-fifth birthday is universally regarded as an "old maid," and a young man who has reached the same age in an unwedded state is pronounced a confirmed bachelor, and the young people themselves appear to accept the current opinion.

One handsome young fellow, twenty-six years old, was a great trial to his mother, a bustling, energetic farmer's wife. As she lamented to a summer boarder, "it did seem as if Hiram was possessed to stay single," no matter what she could say.

"An' 'taint likely," she would add, fretfully, "that any girl will be takin' up with him after a year or two, when he's settled down an' beginnin' to look old!"

Hiram himself was not given to sentiment, and furthermore was quite unconscious of his own attractions. He showed the summer boarder some dreadful photographs of himself, which had been taken the previous winter to please his mother, and remarked gravely:

"Mother was set on havin' 'em, an' I only waited to see if I wa'n't likely to get any better lookin'. But come last winter I see I was beginnin' to fade, so I had 'em took right away!"

The contrast between the speaker's youthful appearance and his words was almost too much for his hearer.

Kismet.

"Do you see that pale young man calling out 'Cash' at the ribbon counter?"

"Yes."

"Fate's awful funny sometimes. Ten years ago, when we were boys together his one ambition was to be a mighty hunter and catch mountain lions with a lasso."—[New York Recorder.

IF we have any virtue in us, did it spring up in an hour or a day? If we have any wisdom, did we pick it up in a lump at some particular turn of our experience? No; these signs and fruits of inward life are the outcome of long, slow-working causes, running back through all our years, including all that we have dreaded and bewailed, as well as all that we welcomed and enjoyed; including also the outward and inward life of our struggling ancestors, and the long and broad evolution of humanity. We must follow the hint; we must make each step an onward one. We must not interrupt our own progress.

HUMOR OF THE WEEK.

STORIES TOLD BY FUNNY MEN OF THE PRESS.

Many Odd, Curious, and Laughable Phases of Human Nature Graphically Portrayed by Eminent Word Artists of Our Own Day.

A Strong Case.

Judge, in Boston court—On what grounds do you apply for this divorce?

Mr. Beacon Hill—On the ground, your honor, of extreme cruelty and neglect.

Judge—Has the defendant anything to say?

Mrs. Beacon Hill (nee Harlem)—Your Honor, the only point of difference that ever arose between us was this: He wanted beans for breakfast seven times a week, and I thought six times was enough.

Judge—And you refused to let him have them the seventh?

Mrs. Beacon Hill—Yes, your Honor.

Judge—The Court grants the divorce, and cannot refrain from expressing its surprise that the application was not made before.—Boston Courier.

Force of Habit.

"It is astonishing how a habit becomes fixed on a man," remarked an electric-car conductor.

"Now what have you caught?"

"The driver, this morning, started out to the car with his stool and whip. He was informed that the stool was barred by the rules. He turned around and said: 'Well, I am going to have the whip anyhow.' The boys laughed at the idea of a driver undertaking to use a whip on lightning."—Columbus Dispatch.

Anxious to Know.

"Now, you never smell the odor of liquor on my breath," said the young clergyman, expostulating with Staggers for his bibulous propensities.

"No; what do you do for it?" asked Staggers, with deep interest.—Epoch.

One of the Two.

In the woods:

Dolan (holding hand to nose)—Murther! Murther! But phat's ailin' the clolmate! Is it mortifoyin', Oi wonther?

Woodman—Why, you greenhorn, don't you know a skunk when you smell one?

Dolan—Musha, but it's a skoonk, is it, that's makin' the atmyshpere so conshpickyous? Well, now, it's mes'lf as do be sayin' it, that aither me nose is igzageratin' the sittywation or the gintleman sadly neglicts his brith.

The Universal Help.

Employer—"Jerry, you ought to know better than to put that box on that shelf, where no one can reach it."

Jerry—"Do you wish to get it down?"

Employer—"Yes."

Jerry (who is slightly impertinent)—"Advertise."—Jeweler's Circular.

A Great Shine.

Br'er Johnsing—"My boy, Abe Linkum done take a great shine to yo' girl, Mathy."

Br'er Saml's—"What fo' you say dat? How yo' know?"

Br'er Johnsing—"He done take her a box of French blacking, yah, yah, yah, niggar."—Lake Shore News.

The Secret Was Safe.

"Why did you talk French to Ethel last night?"

"Because I had something to impart to her that I wished no one else to know."

"But there was a French lady sitting close behind you."

"Yes, but I have since discovered that she didn't understand a word we said."—Cape Cod Item.

They Always Do.

Bjinks—Have you heard of Bjones' great loss?

Bjenks—No; what was it?

Bjinks—Why, he lost a game of croquet yesterday and then he lost his temper.—Somerville Journal.

A Case of Dire Necessity.

Mrs. Kingley—I see your church is going to send away your minister for three months. Isn't that a long time?

Mrs. Bingo—Yes. But we need the rest.—Life.

A Hard World.

"This is a pretty hard world."

"It is. I wonder who first used that phrase?"

"Vulcan, probably, when he dropped on it and broke his leg, after being hustled out of heaven."—Cape Cod Item.

Wanted It Himself.

Miss Summit (at the seaside)—Mr. Travers, I do hope you will be at the hop to-night. We are short of gentlemen.

Travers—But you forget that I came unprepared. I have no dress suit.

Miss Summit—Why not telegraph to your room mate?

Travers (sadly)—That would be useless. He is going to a dance himself.—Clothier and Furnisher.

The Secret of Tenderness.

At the hotel hop:

Ella (of Pittsburg)—Have you ever been in our city, Mr. Henderson?

Harry Henderson, Esq. (fond of the good things of life)—I have. I can recall this by the fact that I had there the best and tenderest steak I ever ate.

Ella (proudly)—Yes, we know how to live in Pittsburg.

Harry H.—Decidedly; and how to act. The waiter at the hotel accounted for the steak by saying that the house enjoyed the use of the steam hammer in the big iron mill in the next block.—Pittsburg Bulletin.

ETHEL—Why are you always kicking because I have other admirers? George—Oh, if you want to make a syndicate of yourself, I don't object